Healthy levels of vitamin D may boost breast cancer outcomes

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Breast cancer patients who have adequate levels of vitamin D—the

"sunshine vitamin"—at the time of their diagnosis have better long-term outcomes, a new study finds.

Combined with the results of prior research, the new findings suggest "an ongoing benefit for patients who maintain sufficient levels [of vitamin D] through and beyond breast cancer treatment," said study lead author Song Yao. He's a professor of oncology in the department of cancer prevention and control at Roswell Park Comprehensive Cancer Center in Buffalo, N.Y.

The study also found that Black women had the lowest vitamin D levels, which might help explain their generally poorer outcomes after a breast cancer diagnosis, Yao's group said.

The findings were presented at the recent virtual annual meeting of the American Society of Clinical Oncology.

One oncologist unconnected to the research said the findings could offer women a simple new way to fight breast cancer.

Vitamin D "can be found in some foods and is made when sunlight strikes human skin," explained Dr. Alice Police, a breast cancer researcher at Northwell Health's Katz Institute for Women's Health, in Westchester, N.Y.

"This may be an opportunity for an important intervention in breast cancer outcomes for all women, but particularly in the Black population," she said.

The study involved nearly 4,000 patients who had their vitamin D levels checked and were followed for a median of almost 10 years.

The patients were divided into three levels: vitamin D deficient (less than

20 nanograms per milliliter in blood tests); insufficient (20 to 29 ng/ml); or sufficient (30 or more ng/ml).

The study wasn't designed to prove cause and effect. However, it found that—compared to women deficient in the nutrient—women with sufficient levels of vitamin D had 27% lower odds of dying of any cause during the 10 years of follow-up, and 22% lower odds for death from breast cancer specifically.

The team also found that the association between vitamin D levels and breast cancer outcomes was similar regardless of the tumor's estrogen receptor (ER) status. The association appeared somewhat stronger among lower-weight patients and those diagnosed with more advanced breast cancers.

"Our findings from this large, observational cohort of breast cancer survivors with long follow-up provide the strongest evidence to date for maintaining sufficient vitamin D levels in breast cancer patients, particularly among Black women and patients with more advanced-stage disease," Yao said in a Roswell Park news release.

Dr. Paul Baron is chief of breast surgery and director of the Breast Cancer Program at Lenox Hill Hospital in New York City. He wasn't involved in the new research, but called it "an important study, as it shows the significance of sufficient vitamin D levels towards improving long-term survival for breast cancer patients."

For her part, Police said the findings highlight the importance for women of adequate vitamin D.

The difference in outcomes between Black and white breast cancer patients "narrowed with higher vitamin D levels at the time of diagnosis," she noted. "This could be an important step in efforts to level

the playing field for this disease: Let the sunshine in!"

Because these findings were presented at a medical meeting, they should be considered preliminary until published in a peer-reviewed journal.

More information: The American Academy of Family Physicians has more on breast cancer.

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